

AFAC STREAM PAPER

Council of Australian Governments (COAG) Report – Natural Disaster in Australia: reforming mitigation, relief and recovery arrangements

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Introduction

In June 2001, the Council of Australian Governments (COAG) commissioned a review of Australia's approach in dealing with natural disasters. While the Review's Terms of Reference encompassed all aspects of disaster management, particular emphasis was directed to the nation's mitigation efforts to minimise the impact of disasters and the adequacy of post-disaster relief and recovery. A High Level Group (HLG) of officials representing Commonwealth, State, and Territory Governments and the Australian Local Government Association conducted the Review throughout the following twelve months. The High Level Group presented its report to the Secretary of the Department of the Prime Minister and Cabinet in August 2002. At the time of writing this paper, COAG is expected to consider the report in late August 2003.

The Review identified the strengths and weaknesses of our current arrangements for managing natural disasters and provided potential frameworks and recommendations to improve natural disaster management. This paper describes some of the issues and challenges and a number of the key reform proposals arising from the Review, including programmes to fund risk assessment and mitigation measures and proposed enhancements to Commonwealth, State and Territory natural disaster relief and recovery arrangements.

Natural disasters in Australia

The Australian continent regularly experiences natural disasters such as floods, bush-fires and tropical cyclones. As a snapshot, in just the past few years we have had wildfires in many areas of Australia, including Canberra earlier this year; significant floods in northern New South Wales and North Queensland and major cyclones impacting north west Western Australia. No state or territory has escaped natural disasters of some type over recent years.

Natural disasters cause more than \$1.14 billion damage each year to homes, businesses and the nation's infrastructure, along with serious disruption to communities. The effects of disasters reach beyond monetary and economic terms and into the heart of our social and community well being.

Scientific research of climatic changes associated with Greenhouse conditions indicates that more extreme weather events, and large-scale single events with more severe cyclones, storms and floods, can be expected in the future.

Yet in many areas across Australia, populations and the built environment continue to develop in hazard-prone areas due to growth in population, economic activity and lifestyle changes. We like to live in the bush, have views from hillsides and appreciate the tranquility of river and seaside aspects. Major urban development, particularly in coastal and river valley locations, has continued sometimes without reference to hazard risk assessment and consideration of appropriate mitigation measures, with the result that certain urban developments and essential infrastructure that support significant populations are at risk of damage from natural disasters.

In many regional areas too, as a result of inadequate risk assessments and mitigation action, transport infrastructure, such as roads and rail links, is flooded each year, inundating townships and disrupting travel for local populations and tourists, the carriage of commodities for communities and business, and the supply of materials for industry.

Reforming natural disasters arrangements

The objective of the COAG Review of natural disaster relief and mitigation arrangements was to examine whether current arrangements provide an effective framework to address the impact of natural disasters in Australia, and make recommendations for change where improvements were needed.

The Review commenced at a time when there was there was a substantial and growing appreciation by governments at all levels that the economic cost of disasters was steadily rising and likely to escalate markedly in coming years, unless there was greater investment in a whole range disaster mitigation strategies.

As well, it was recognised that an important tool in the focus on mitigation was the Australian New Zealand Risk Management Standard 4360, which in recent years had been adapted for application in assessing disaster risk and developing mitigation options.

Terms of Reference of the Review

The Review's Terms of Reference included reviewing:

- Disaster mitigation and disaster relief programmes and arrangements of the three levels of government, with a view to assessing their appropriateness, effectiveness, scope and allocation of roles and responsibilities.
- Commonwealth, state and territory, and local government policy-making machinery in relation to disaster relief, mitigation, contingency planning and emergency management, including the process by which the Commonwealth, states and territories respond in the first instance to a disaster.
- Where appropriate, develop options for improving upon existing arrangements.

Approach to disaster management

In the period until the late 1980s Australian disaster management tended to focus on planning and preparations associated with disaster response and rescue. A well-established response system can reduce the number of casualties from natural disasters and in some cases, such as bushfire, can limit the consequential damage. However, in the case of floods, coastal

inundation, cyclones and storms, response measures are not sufficient to assist the economic and social recovery of communities.

More recently in Australia as well as overseas, the focus of disaster management has shifted focus towards undertaking disaster risk assessments, developing community preparedness, disaster mitigation measures and, in some States, recovery management. While this represents progress towards a more sustainable and cost-effective approach, in Australia there remain significant opportunities for reform of the current disaster management arrangements.

Philosophy behind the natural disaster reforms

The HLG concluded that current arrangements could be improved to ensure that Australia has a world-class national framework for natural disaster management — thus achieving safer, more sustainable communities, and reduced risk, damage and losses.

Central to a new approach would be a systematic and widespread national process of disaster risk assessments and, most importantly, a fundamental shift in focus towards cost-effective, evidence-based disaster mitigation at all levels of government — representing an historic move beyond disaster response and reaction, towards anticipation and mitigation.

Responsibilities

The HLG also considered it is in the national interest, and the interest of all communities, that each level of government accepts responsibility within its own jurisdiction for natural disaster mitigation in relation to land, property and the environment, assets and infrastructure, agencies and programmes, because of the benefits that can be achieved through mitigation.

State and Territory Governments have the principal role in natural disaster mitigation within their respective jurisdictions. They set the legislative and policy frameworks in key areas such as land use planning and emergency management, and set the policy parameters for investment in infrastructure and for many funding programmes.

Local government has a vitally important role to play at the community level in assessing risk, determining local investment priorities, and planning and implementing disaster mitigation measures to achieve more sustainable communities, and reduce the loss of life, damage and cost to communities from disasters.

However, disaster mitigation is by no means the sole province of governments. Governments also need to engage a wide range of other parties, including private, public and community stakeholders, in disaster mitigation. Most parties can benefit directly from investments in mitigation. As a consequence, the community as a whole also stands to gain.

Proposed new National Framework

The HLG established a set of objectives and desirable attributes for a proposed unified national approach to natural disasters under which governments, households, businesses, volunteer organisations, insurers and others with a part to play could operate in concert.

The objectives were to:

- create safer, more sustainable communities and regions in social, economic and environmental terms;
- reduce risks, damage and losses from natural disasters;

- find the right balance among mitigation, preparedness, response, relief and recovery activities; and
- recognise the investment and savings opportunities provided by mitigation.

The ten desirable attributes of a new national framework identified as the foundation for a new approach to drive future action jointly by all levels of government are:

1. The framework for dealing with natural disasters should fit within the ‘all hazards’ approach of Australia’s emergency management agencies. This acknowledges the fact that State and Territory arrangements are designed to deal with all hazards and do not deal separately with natural disasters. Specific arrangements proposed for natural disasters could be applied more broadly to other emergencies where governments so chose.
2. Natural disaster management activities should be driven by an active and coordinated national approach to research and development, data collection and analysis, and systematic, widespread risk assessments. The intention is to shift national management arrangements further towards proactivity, from the more reactive approach of the past.
3. Guided by such research and risk assessments, there should be a stronger focus on anticipation, mitigation, recovery and resilience in order to achieve safer, more sustainable communities, and a better balance compared with the effort and resources traditionally applied to disaster relief.
4. Sound and effective land use planning, and development and building approval regimes by Local, State and Territory Governments, should take into account disaster risk reduction and mitigation as essential foundations for safer, more sustainable communities.
5. Mitigation measures should be the subject of rational, cost/benefit and social investment decisions, with special provision for remote, Indigenous and other communities that may otherwise be disadvantaged by a strict cost/benefit approach.
6. Disaster management measures should promote household and business self-reliance through risk assessment and mitigation, encourage private sector involvement, and specifically should maximize commercial insurance cover.
7. Volunteers should be supported in tangible ways and obstacles to their involvement removed given that they are a fundamental part of Australia’s natural disaster management arrangements.
8. Commonwealth, State, Territory and Local Government financial arrangements should provide incentives for good practice, particularly to encourage disaster mitigation and preparedness activities.
9. Local Governments must have a critically important role in disaster risk reduction and mitigation strategies and measures as they are best placed to determine local risks and needs.
10. All levels of government need to mainstream disaster mitigation across their departments and agencies, and take an ‘all-governments/ whole-of-government’ approach to mitigation to achieve successful natural disaster management.

Proposed key reform commitments

The HLG proposes 12 reform commitments to reform the way Australia manages natural disasters and achieve safer, more sustainable communities and regions in economic, social and environmental terms. These reform commitments, recommended for implementation by all levels of government, would significantly improve Australia’s arrangements for dealing with the threats posed by natural hazards, and with natural disaster events.

Key elements of the proposed reform commitments are:

- a Disaster Mitigation Australia Package, a set of two programmes to fund the new risk assessment and mitigation measures and essential supporting arrangements;
- enhanced Commonwealth, State and Territory natural disaster relief and recovery arrangements;
- new national cost-sharing principles which would be an enduring set of agreed arrangements; and
- new national decision-making machinery to drive the implementation of the reform package.

In detail the proposed commitments are:

1. Develop and implement a five-year national programme of systematic and rigorous disaster risk assessments.
2. Establish a nationally consistent system of data collection, research and analysis to ensure a sound knowledge base on natural disasters and disaster mitigation.
3. Develop, for each level of government, a natural disaster mitigation strategy to be implemented by the Commonwealth and each State and Territory commencing in year 2, and by Local Governments commencing in year 3.
4. Take action to ensure more effective statutory State, Territory and local government land use planning, development and building control regimes that systematically identify natural hazards and include measures to reduce the risk of damage from these natural hazards.
5. Support cost-effective natural disaster mitigation measures through a five-year Disaster Mitigation Australia Package, consisting of a new Disaster Mitigation Programme and continuation of the Regional Flood Mitigation Programme, to address the risks identified in (1) above.
6. Reduce the problem of public infrastructure repeatedly damaged by natural disasters through cost-effective mitigation measures to make infrastructure more resilient, where feasible, by pro-active measures under the Disaster Mitigation Australia Package, and post-disaster measures under the Commonwealth Natural Disaster Relief Arrangements.
7. Develop jointly improved national practices in community awareness, education, and warnings, which can be tailored to suit State, Territory and local circumstances.
8. Enhance the Commonwealth Natural Disaster Relief Arrangements to better support community recovery from natural disasters and agree to ten complementary model State and Territory arrangements providing more equitable natural disaster relief and recovery assistance nation-wide.
9. Endorse a set of national cost-sharing principles for natural disaster management that includes a focus on the responsibilities of individuals, businesses and insurers, as well as those of governments.
10. Support emergency management volunteers in tangible ways and remove obstacles to their involvement in community safety by addressing key priorities, namely legal protection, financial incentives, recognition and training needs.
11. Establish new national machinery to ensure effective collaboration and coordination of Commonwealth, State, Territory and Local Government action in implementing the reform commitments.
12. Endorse a statement of contemporary roles and responsibilities of each level of government in natural disaster management.

Disaster Mitigation Australia Package (DMAP)

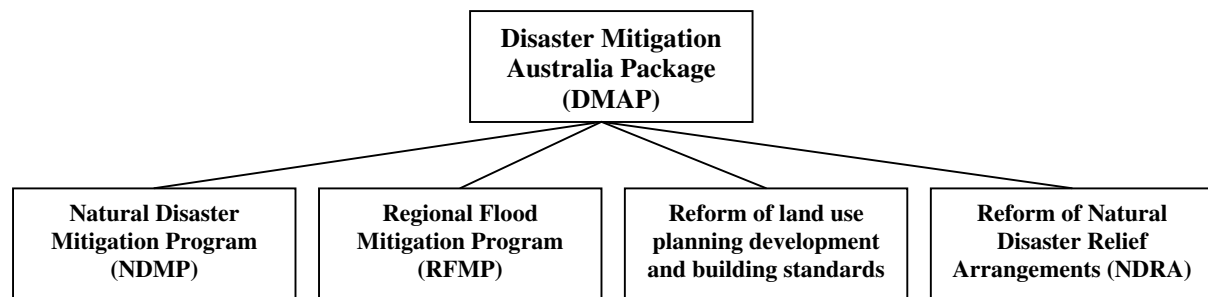


Figure 1. The Disaster Mitigation Australia Package

The DMAP is the principle reform proposed and offers the capacity to significantly improve investment in mitigation measures. Even though COAG has yet to accept the Report, aspects of this reform were announced in the Federal Budget in May 2003. The May Budget provided \$68.5 million dollars in new funding over five years to establish the DMAP.

Commonwealth funding would be subject to agreed cost sharing arrangements. For State sponsored projects, the Commonwealth and State Government would share the costs on a 50:50 basis. Local Government projects would generally be funded through each level of government contributing one third of the costs.

Natural Disaster Mitigation Program — NDMP

The new NDMP, to which the majority of the new Commonwealth funding would be directed, will include continuation of the established Natural Disaster Risk Management Studies Program (NDRMSP) as well as support a wide range of mitigation measures, including:

- pro-active disaster resilient infrastructure investments including upgrading or relocating existing public infrastructure, or building structures such as levee banks;
- community awareness and readiness measures;
- disaster and mitigation research of public benefit;
- development of geographic information systems for natural hazards, and flood data and mapping for mitigation purposes;
- land and building buyback schemes in high risk areas;
- disaster warning systems;
- mitigation considerations within land use planning and development approvals; and
- whole-of-government mitigation strategies.

Natural Disaster Risk Management Studies Program — NDRMSP

The current NDRMSP was established in 1999–2000 and is aimed at encouraging State, Territory and local governments to undertake worthwhile risk management studies to identify, analyse and evaluate risks from natural disasters. The programme is intended to stimulate the introduction of preventative/mitigation measures to reduce the risks identified in the studies. Funds are provided for studies in to risks posed by bushfires, cyclones, storm surge, floods, storms, earthquakes and landslides.

The Commonwealth provides funding of \$3 million per annum for this programme, nationally, with matching State and Local Government contributions. Queensland has been

very active in this programme with a total of 140 studies in Rounds 1–4 being approved at a total value of \$10.48 million.

Regional Flood Mitigation Program — RFMP

The existing RFMP will continue until 2006–06 when it will be ‘rolled into’ the NDMP. The RFMP is aimed at assisting State and Territory governments and local agencies to implement priority, cost effective flood mitigation works and measures. Such eligible measures include flood control dams, retarding basins, levees, house raising, flood proofing buildings, community awareness and flood warning systems. The Commonwealth will provide approximately \$43 million between now and 2007 for this programme.

Reform of land use planning

Natural disasters occur when human populations, assets and activities are affected by hazards such as fires, flood, cyclone, storm surge, earthquake and landslides. The Australian continent is prone to a wide range of natural hazards. Inevitably, over the past two centuries, human settlement has taken place in areas exposed to varying degrees of natural hazard. As the extent and density of Australia’s population increases, so too does the potential for natural disasters.

Reducing natural hazard risk in established areas is difficult and costly. It is significantly more cost-effective that proactive mitigation measures such as land use planning, development approval processes and building standards are used to provide the first level of risk control to minimise hazard exposure and reduce the magnitude of future risk.

If future natural hazard risk is to be minimised, it will be essential that each State and Territory significantly improve its current land use planning requirements to take substantial account of natural hazards such as fire, flood, storm surge and landslip. These requirements will determine the general standard of land use planning by Local Governments.

My Department in conjunction with the Queensland Department of Local Government and Planning have been working over the past two years to establish a State Planning Policy that would ensure that development minimises the potential adverse impacts of flood, bushfire and landslide on people, property, economic activity and the environment. The *State Planning Policy 1/03: Mitigating the adverse impacts of flood, bushfire and landslide* (SPP 1/03) and associated *State Planning Policy Guideline* was adopted in May this year and came into effect on 1 September.

State Planning Policies are statutory instruments that are prepared and adopted under the *Integrated Planning Act 1997* (IPA) and express the State’s interests in land use planning and development-related matters. State Planning Policies are to be integrated into local government planning schemes and must be considered when assessing development applications. Therefore SPP 1/03 is a powerful mechanism for achieving good outcomes through the planning and development assessment process.

SPP 1/03 ensures that the natural hazards of flood, bushfire and landslide are adequately considered when making land use planning decisions in Queensland. The Guideline provides detailed advice and information on interpreting and implementing the SPP 1/03 and has legal status in assisting in the interpretation of SPP 1/03.

Building standards, both in their own right, and used in conjunction with land use planning measures, are vital to minimising the impacts of a range of natural hazards. The design, construction standards and materials used in buildings can positively affect their ability to withstand natural hazard impacts, thus reducing damage costs and threat of injury or death to the occupiers of buildings. Consequently, the development and adoption of hazard codes into building standards is another key measure for minimisation of future risks.

There is clear evidence as to the effectiveness and cost efficiency of such measures. For example, following the devastation of Darwin in cyclone Tracey in 1974, a major research effort in wind engineering resulted in fundamental changes to building codes, building practice and building control in Australia. The economic benefits of incorporation of the wind code into new buildings across Australia over the past 26 years are difficult to quantify, but the insurance and reinsurance industry recognises them as extremely significant. Likewise, building standards pertaining to fire have had significant positive effects.

Enhancing Natural Disaster Relief Arrangements — NDRA

Under the Natural Disaster Relief Arrangements (NDRA), the Commonwealth provides funding assistance to States and Territories aimed at alleviating the financial burden associated with the provision of natural disaster relief payments and infrastructure restoration.

While disaster relief is primarily the responsibility of States and Territories, the NDRA ensures they are partly reimbursed for disaster relief once their expenditure exceeds a certain threshold. Under the NDRA, State and Territory expenditure directed towards specific measures that aim to help people severely affected by the impact of a natural disaster is partly reimbursed by the Commonwealth.

Natural disasters covered by the NDRA include bushfires, cyclones, earthquakes, floods, storms, storm surge and landslides (consequential upon an eligible event). Eligible relief measures provided by the States and Territories that qualify for Commonwealth assistance under NDRA are:

- grants for relief of 'personal hardship and distress' such as the provision of emergency food, clothing and accommodation, essential housing repairs, or the replacement of essential household goods - eligibility for which may vary between States and Territories;
- concessional interest rate loans to farmers, small business operators and voluntary non-profit bodies to replace assets that have been significantly damaged in an eligible disaster. Recipients must have no reasonable access to commercial finance and, in the case of farmers and small business operators, have reasonable prospects for long-term viability;
- payments to restore or replace essential public assets which have been damaged as a direct result of an eligible disaster to a pre-disaster standard; and
- payments for providing financial and psychological counselling to people who have experienced an eligible natural disaster.

The HLG has proposed to modernize and enhance the NDRA through:

- The establishment of special community Recovery Modules, a set of predetermined, readily available, equitable measures, to replace ad hoc special assistance measures. The modules will provide additional assistance, beyond that available under NDRA, to individuals and families, small business and primary producers and to promote community recovery.

- Changing the existing NDRA determination to allow for the rebuilding of damaged public infrastructure to a higher standard of disaster resilience where it is cost effective to do so.
- Moving towards greater uniformity of the application of the NDRA determination by States and Territories, including changes to the Personal Hardship and Distress payments so they are based on an assessment of need.
- Amendments to the NDRA determination including the recognition of Local Government owned water and sewerage facilities as eligible for reimbursement under NDRA.
- Reductions of NDRA reimbursements to local governments which do not develop and implement disaster mitigation strategies by the end of the third year after implementation of the reforms has commenced.
- Requirements for a post disaster assessment report prior to Natural Disaster Relief Arrangements reimbursements to the State.

Mainstreaming mitigation

While particular departments within all levels of government undertake leadership and coordination roles in disaster mitigation, major improvements cannot be achieved without ‘mainstreaming’ mitigation into all relevant areas of activity. Mainstreaming means the systematic inclusion of mitigation considerations into a wide range of normal government and private practices to gain incremental and sustained benefits in improved disaster resilience in Australian society.

Matters that need particular attention through mainstreaming include:

- strategic and land use planning, incorporating natural hazard considerations;
- requirements for major government and private infrastructure to be designed and constructed to withstand natural hazard impacts;
- the incorporation of robust hazard codes into building standards; and
- mitigation criteria being included in all relevant government funding programmes;

Major advances in disaster mitigation will result from all levels of government mainstreaming disaster mitigation as a whole-of-government responsibility of all departments and agencies.

Additional issues covered in the Review

Volunteers in emergency management

With volunteer effort underpinning Australia’s emergency management effort, it is in the interests of all levels of government to provide recognition, protection, incentives, and funding for volunteers and volunteer organisations. The contribution of employers of volunteers is also crucial in enabling volunteers to provide services and to participate in training. Emergency management services are under pressure as volunteer organisations struggle to maintain their volunteer base in an increasingly challenging environment.

Emergency management sector volunteers also subsidise other aspects of service provision by personally funding their own travel, communications and community fund-raising efforts. They perform a multitude of tasks including community awareness raising, training, response and recovery. Many volunteers are frequently exposed to the risk of injury as they operate in disaster situations and therefore must be highly trained, effective and courageous.

The HLG identified a number of issues to be addressed in reforms to assist with the satisfaction and retention of volunteers. These issues include:

- Clarifying and harmonizing legal protections for volunteers across jurisdictions.
- Examining of incentives for all volunteers to assist these organisations sustains continued high performance.
- Recognising and acknowledging the value of the contribution of volunteers and employers of volunteers to the achievement of safer communities.
- Exploring ways to streamline and coordinate training provision

Indigenous communities

Indigenous Australians, particularly those living in remote areas, face injury, loss and damage from the effects of natural disasters each year. The HLG affirmed the need for effective relief and recovery measures to assist disaster-affected communities, but acknowledged that existing recovery and mitigation measures are not readily accessible by remote and vulnerable Indigenous communities.

Most Indigenous communities have little or no financial capacity for mitigation and face considerable disadvantage in the key areas of health, education, employment and housing. Communities have tended to accord much lower priority to disaster risk management activities in the presence of more pressing community concerns.

Improved risk reduction for remote Indigenous communities cannot be attained without the will and involvement of the communities and strategies that take into account the needs and diversity of these communities. This requires long-term commitment to the inclusion of Indigenous communities in mainstream planning and service delivery from all levels of government and agencies, including Indigenous organisations. This should be characterised by a multi-jurisdictional and cross-functional approach that builds partnership arrangements with Indigenous communities.

Other Challenges and Issues

Other challenges and issues identified during the Review as needing attention are:

- The need to develop a national disaster assessment capability which can speedily provide critical information on the scope of a disaster, the needs of affected communities, and problems associated with mounting a response.
- The declining availability of volunteers in the emergency management sector.
- The difficulties of providing counter-disaster preparedness and response capabilities in remote Indigenous communities.
- The need to improve the inter-operability of emergency management agencies across the nation.
- More systematic use of GIS and remote sensing products for more effective mitigation, response and recovery functions and decision making.
- The need for a more sophisticated and effective approach to community disaster awareness and education.
- Enhancing Local Government preparedness and response capabilities.
- The need for a national approach to dealing with catastrophic disasters.

Conclusion

In the period before the COAG Review took place, targeted and collaborative research and development efforts across Australia's disaster management community had resulted in a relatively small but cogent repository of improved information, data and techniques on key topics such as the economic and social costs of disasters, risk assessment and management, and future trends.

The establishment of the COAG Review provided a critical opportunity to draw on this material as well as accelerate the provision of other important data, allowing for a robust examination of the nation's disaster management arrangements. The 66 recommendations of the COAG Report represent an historic paradigm shift in the determination of future disaster management policy and practice in Australia.

Importantly, the very high degree of constructive interaction and co-operation between the Commonwealth Government, the State and Territory Governments and the Australian Local Government Association throughout the Review, and the early commitment of Commonwealth funds to the reform measures, auger well for significant improvement in disaster management in Australia in the twenty first century.

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